



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/776,850	02/11/2004	Juri Heinrich Krieger	H2015CIP	3045
23623	7590	09/01/2005	EXAMINER	
AMIN & TUROCY, LLP 1900 EAST 9TH STREET, NATIONAL CITY CENTER 24TH FLOOR, CLEVELAND, OH 44114			NGO, NGAN V	
			ART UNIT	PAPER NUMBER
			2818	

DATE MAILED: 09/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/776,850	KRIEGER ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ngan Ngo	2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 08 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) 26-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-25 and 33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 2818

The amendment filed July 8, 2005 has been entered and made of record as paper no. 0705.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7 and 33 stand rejected under 35 U.S.C. 102(b) as being anticipated by Kobayashi et al (US-6,245,601).

Kobayashi discloses a memory device comprising a first electrode (2), a functional media (4, 5, and 70), and a second electrode (6) in which the impedance state of the functional media is inherently changed based on a migration of electrons or holes when it is subjected to an external light radiation.

In re claim 2, the functional media comprises at least one of an active layer (4) and a passive layer (5 or 70).

In re claim 3, the electrode in Kobayashi is made of chromium. See line 52, column 6 of Kobayashi.

In re claims 4-6, Kobayashi discloses that any known conductive material as "the like" can be used for the electrode. See line 52, column 6 of Kobayashi. Applicants failed to show the criticality of the material used for the electrode and therefore any known conductive material can be used as an electrode.

In re claim 7, the active layer in Kobayashi is a non organic material.

Art Unit: 2818

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Kobayashi et al (US-6,245,601) in view of Clausen et al (US-6,272,038, cited by Applicants).

Kobayashi discloses all the subject matter discussed above; however, Kobayashi does not disclose most of the material used for the active layer. Clausen teaches all the materials used in the active layer starting from line 45, column 6 of Clausen. Therefore, it would have been obvious to one of ordinary skill in the art to use all the materials taught by Clausen in Kobayashi's device in order to form different memory device.

Applicant's arguments filed July 8, 2005 have been fully considered but they are not persuasive.

Applicant failed to provide evidence to show that the impedance state of the functional media in Kobayashi is not changed based on the migration of electrons or holes when it is subjected to an external light radiation. Since only alleged distinction between applicants' claims and reference is recited in functional language, it is incumbent upon applicants, when challenged, to show that device disclosed by reference does not actually possess such characteristics. See In re Ludtke, 169 USPQ 563. The element 100 in Kobayashi is part of a memory device which comprises a memory element 6004. Note lines 13-25, column 23 of Kobayashi. Element 100 in

Art Unit: 2818

Kobayashi is not needed to have the "memory state change" because the function media according to claims 1 and 33 does not function as the "memory state change" as argued by Applicants. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to Examiner Ngan Ngo at telephone number (571) 272-1711. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2818

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Ngan Van Ngo'.

**Ngan Van Ngo**  
**Primary Examiner**

Ngan Ngo

August 29, 2005